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HONEYWELL INTERNATIONAL INC.  
101 COLUMBIA ROAD  
P O BOX 2245  
MORRISTOWN, NJ 07962-2245

EXAMINER

LEROUX, ETIENNE PIERRE

ART UNIT	PAPER NUMBER
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2171

DATE MAILED: 01/30/2004

*VC*

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/804,932

Applicant(s)

SHETTY, RAVINDRA K.

Examiner

Etienne P LeRoux

Art Unit

2171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 13 is/are rejected.
- 7) ☒ Claim(s) 8-12 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

***Claim Objection:***

Claims 8-12 and 14 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, first and second paragraphs, set forth in this Office Action.

***Specification:***

The abstract of the disclosure is objected to because the following language is included: “[a]n analyzer transforms each of the morphologized words to a unique numerical representation such that the transformed unique numerical representation does not result in multiple similar numerical representations, to avoid ambiguous prediction of meaning of the translated words in the received text.” It is unclear how translating a word into a unique number will distinguish between the different meanings of the word. Correction is required. See MPEP § 608.01(b).

***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-14 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 1, 7, 8 and 12 recite “such that the transformed unique numerical representation does not result in multiple similar numerical representations, to avoid ambiguous prediction of meaning of the transformed words in the received text.” One of ordinary skill in the art is not able to use the present invention to avoid ambiguous prediction of the meaning of a word. The present invention converts a word into a numerical representation. This unique numerical representation does not address the possible multiple different meanings of the word. Applicant on pages 5 and 6 of the specification, as an example, converts the word keyboard to the number 90,192,703,308 by means of the A to Z helix transformation. It is unclear how the number 90,192,703,308 distinguishes between the different meanings of keyboard<sup>1</sup> in order to avoid ambiguous prediction of the meaning of the word keyboard.

Claims 7 and 12-14 recite “n distinct letters in the alphabet of the language.” It is unclear how to use the invention with a language such as several of the Asian languages which do not have an alphabet with unique letters such as the English language.

Claim 6 recites “wherein the received text can be in any natural language.” It is unclear how to use the invention to represent kanji characters.

Claims 2-5, 9-11, 13 and 14 are rejected for being dependent from a rejected base claim.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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<sup>1</sup> (i) the row or rows of keys of a piano, typewriter, linotype, computer terminal, etc., (ii) a musical instrument with a keyboard: esp., an electronic piano, synthesizer, etc. as employed in a rock or jazz group. Webster's New World College Dictionary, Fourth Edition.

Art Unit: 2171

Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 7, 8 and 12 recites "such that the transformed unique numerical representation does not result in multiple similar numerical representations, to avoid ambiguous prediction of meaning of the transformed words in the received text." The scope of the claimed invention is difficult to ascertain because it is unclear how transforming a word into a unique numerical representation will distinguish the different meanings of the word.

Claim 2 recites "receiving text from a source selected from the group comprising a data/data warehouse, a LAN/WAN network, the Internet, a voice recognition system, and a mobile/fixed phone." One acceptable form of alternative expression, which is commonly referred to as an Markush group, recites members as being "selected from the group consisting of A, B and C. See *Ex parte Markush*, 1925 C.D. 126 (Comm'r Pat. 1925). Correction is required.

Claim 4 recites "selected from the group comprising filtering to remove all words comprised of three or fewer letters, and filtering to remove rarely used words." One acceptable form of alternative expression, which is commonly referred to as an Markush group, recites members as being "selected from the group consisting of A, B and C. See *Ex parte Markush*, 1925 C.D. 126 (Comm'r Pat. 1925). Correction is required.

Claim 5 includes the phrase "such as" which renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Art Unit: 2171

Regarding claims 7 and 12-14, the phrase "for example" renders the claim indefinite because it is unclear whether the limitation(s) following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim 9, recites "wherein the key-word extractor extracts key-words based on a specific criteria selected from the group comprising filtering to remove all words including three or fewer letters in the received text, and filtering to remove rarely used words. One acceptable form of alternative expression, which is commonly referred to as an Markush group, recites members as being "selected from the group consisting of A, B and C. See *Ex parte Markush*, 1925 C.D. 126 (Comm'r Pat. 1925). Correction is required.

Claims 3, 6, 10 and 11 are rejected for being dependent from a rejected base claim.

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-7 and 13 of the claimed invention are directed to non-statutory subject matter for the reasons given below.

MPEP § 2106 states:

#### **1. Nonstatutory Subject Matter**

Claims to computer-related inventions that are clearly nonstatutory fall into the same general categories as nonstatutory claims in other arts, namely natural phenomena such as magnetism, and abstract ideas or laws of nature which constitute "descriptive material."

Abstract ideas, *Warmerdam*, 33 F.3d at 1360, 31 USPQ2d at 1759, or the mere manipulation of abstract ideas, *Schrader*, 22 F.3d at 292-93, 30 USPQ2d at 1457-58, are not patentable. Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In

Art Unit: 2171

this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

Both types of "descriptive material" are nonstatutory when claimed as descriptive material per se. Warmerdam, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized.

Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). When nonfunctional descriptive material is recorded on some computer-readable medium, it is not statutory since no requisite functionality is present to satisfy the practical application requirement. Merely claiming nonfunctional descriptive material stored in a computer-readable medium does not make it statutory. Such a result would exalt form over substance. In re Sarkar, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978).

Claims 1-7 and 13 are directed to a method for transforming words to a numerical representation which is mere manipulation of an abstract idea. In order to be statutory, the claims should be drawn to a practical application in the technological arts. Applicants should claim functional descriptive material recorded on computer readable medium. The use of technology must permit the function of the descriptive material to be realized so that something that is concrete, tangible or useful is produced.

***Art Rejection***

Instant invention will not be rejected over prior art in this Office Action.

***Allowable subject Matter***

Claims 8-11 and 14 are allowable (subject to overcoming the rejection(s) under 35 U.S.C. 112, first and second paragraph, set forth in this Office Action) for including transforming words to an unique numerical representation by using an A to Z helix transformation function

***Response to Arguments***

Applicant's arguments, see pages 6-8, filed 12/19/2003, with respect to claims 1-14 have been fully considered and are persuasive. The rejection/objection of claims 1-14 over the prior art consisting of Pfeiffer, Kusnick and Chundi has been withdrawn.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Etienne LeRoux whose telephone number is (703) 305-0620. The examiner can normally be reached on Monday – Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic, can be reached on (703) 308-1436.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



Application/Control Number: 09/804,932

Page 8

Art Unit: 2171

Patent related correspondence can be forwarded via the following FAX number (703)

872-9306

Etienne LeRoux

1/28/2004

*Etienne LeRoux*